Notes on Hymenoptern

3. Contribution to the knowledge of the distribution of Swedish aculeate hymenoptera. I

By

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Among Swedish entomologists the interest in the hymenopteras is infinitesimal in comparision with other groups of insects like beetles and butterflies. The consequense is that our knowledge of the distribution of these insects is pretty defective. In a list of the aculeate hymenoptera and the chrysids captured in the Baltic islands (Öland, Gotland, Fårön and Gotska Sandön) Jansson (1934) also mentioned their distribution in the remaining part of Sweden. But the mentioned insects are only part of the species of the country.

The cause for this scanty interest may inter alia be due to the absence of native literature concerning these insects. During the years 1903—18 Aurivillius published a fauna of the Swedish aculeate hymenoptera. Since then there are no new books published with the exception of a second reprint of Fam. *Psammocharidae* (edited 1929 by O. Lundblad and A. Roman). Most of the books are more or less out of date and some of them are also out of print.

During my work with the Swedish apids my interest has been awakened in other groups of aculeate hymenoptera and a lot of specimens have been captured. In this journal I am going to communicate on the one hand my own finds and on the other finds from collections belonging to the department of the Swedish Museum of Natural History (Stockholm). These collections were brought together by Dr. A. Roman (†), Lic. G. Hedgren (†), Dr. S. Selander (†), Prof. O. Lundblad, Keeper E. Kjellander and Dr. G. Wängsjö. For my own collection I have received specimens captured by Demonstrator K. J. Hedquist. But it contains not only rare or smaller common species but also common ones. We know for a fact that it is easier to draw a map of distribution of a rare species than of a common one.

In this paper I begin with the following Families viz. *Sapygidae, Scoliidae, Tiphidae, Methocidae, Myrmosidae, Mutillidae* and *Eumenidae* (the solitary wasps). I have already used my collections in two small papers, the Swedish species if the genus *Eumenes* (Erlandsson 1950) and *Philanthus triangulum* F. (Erlandsson 1962). Some specimens of my collections were captured in the summer of 1958 when I made investigations of apids in Southern Sweden by means of a grant from the Council of Natural Science.

I wish to convey my sincerest thanks to the superintendent of the entomological department Prof. L. Brundin, Prof. O. Lundblad and Keeper E. Kjellander for the permission to include their material in this paper.

In preparing the maps of distribution of *Mutilla europaea* L. and *Bembix rostrata* F. I have received valuable assistance from Dr. K. Ander (Linköping), Mr. T. Brander (Forssa), Forest. off. R. Elfving (Kuopio), Dr. Kj. Fahlander (†) (Linköping), Mr. Th. Grönblom (Tammerfors), Dr. A. Jansson (†), Mr. E. Lathinperä (Åbo), Prof. C. H. Lindroth (Lund), Dr. L. R. Natvig (Oslo), Dr. P. Nuorteva (Helsingfors), Dr. B. Pedersen (Copenhagen), Miss A. Ponomareva (Leningrad), Dr. W. Pulawski (Wrocław) and Lawyer E. Wieslander (Ludvika). To this lady and those gentlemen I wish to convey my sincerest thanks. To Mr. E. Valkeila (Hämenlinna) I wish to convey my special gratitude for his valuable help with the determinations and the control of determinations.

In the list of localities I have used the following abbreviations for the collectors:

Adlerz, G.	Az	Hanson, B.	Hn	Lekander, B.	Lkr
Ammitzböll, I.	Al	Hansson, T.	Hsn	Malaise, R.	Me
Andersson, H.	An	Hanström, B.	Hm	Nordenström, H.	Nm
Boheman, K. B.	Bhm	Hedgren, G.	Hdn	Nordin, A.	Nn
Bruce, N.	Bc	Hedquist, K.-J.	Hqt	Nordström, F.	Ndm
Butovitsch, V.	Bh	Jansson, A.	Jn	Palm, Th.	Pm
Ekman, T.	En	Kistner, Å.	Ker	Rindahl, O.	Rl
Erlandsson, A.	A. Edn	Kjellander, E.	Kjr	Roman, A.	Rmn
Erlandsson, S.	Edn	Klefbeck, E.	Kk	Rytterfalk, L.	Rk
Forsslund, K.-H.	Fd	Lundblad, O.	Ld	Selander, S.	Sr
Gaunitz, C. B.	CBG	Lang, K.	Lg	Sjöberg, O.	Sg
Gaunitz, D.	DG	Larsson, A.	Ln	Wieslander, S.	Wlr
Gaunitz, S.	SG	Leiler, T.-E.	Lir	Wängsjö, G.	Wö

Concerning the names of the Swedish provences in the list of localities I have used the following abbreviations: used in Catalogus Insectorum Sueciae edited by the Entomological Society in Lund.

Sk.	Skåne	Nrk.	Närke	Ång.	Ångermanland
Bl.	Blekinge	Sdm.	Södermanland	Vb.	Västerbotten
Hall.	Halland	Upl.	Upland	Nb.	Norrbotten
Sm.	Småland	Vstm.	Västmanland	Ås. Lpm.	Åsele Lappmark
Öl.	Öland	Vrm.	Värmland	Ly. Lpm.	Lycksele Lappmark
Gotl.	Gotland	Dlr.	Dalarna	P. Lpm.	Pite Lappmark
G. Sand.	Gotska Sandön	Gstr.	Gästrikland	Lu. Lpm.	Lule Lappmark
Ög.	Östergötland	Hls.	Hälsingland	T. Lpm.	Torne Lappmark
Vg.	Västergötland	Med.	Medelpad		
Boh.	Bohuslän	Hrj.	Härjedalen		
Dlsl.	Dalsland	Jmt.	Jämtland		

Fam. **Sapygidae**

Sapyga Latr

S. clavicornis L. — Bl. Sjöarp 12/6-50 ♀ (Lkr). — Sdm. Ludgo 2/7-34 3 ♀ (Sbg); Tyresö-Svartbäcken 28/6-34 ♀, 4/8—34 ♀, 5/5-36 ♀ (Sr). — Upl. Svartsjö 2/7-22 ♀ (Hdn); Fågelbolandet: Barnvik 1936 ♀ (Lkr). — Dlr. Rättvik: Sjurberg 19/7-64 ♀ (Edn). — Jtl. Snasahögarna 29/6—9/7-37 ♀ (Sg).

S. quinquepunctata F. — Sk. Torekov 11/6-37 ♀ (Sr); Falsterbo 7/7-39 ♀ (Sr); Vitemölla 31/7-58 ♀ (Edn). — Uppl. Enebyberg 10/6-57 ♀ (Fd).

S. similis F. — Sm. Flisby: Brånstorp 19/8-59 ♀ (Edn). — Sdm. Tyresö—Brevik 8/6-34 ♂ (Sr). — Upl. Håbo—Tibble 19/7-40 ♀ (Sr). — Jtl. Undersåker ?/7-48 ♀ (CBG).

Fam. **Scoliidae**

Scolia F

S. hirta Schrk. — In Selander's collection there is a male of this species captured in Ljugarn (Gotland) on the 25th July 1933. Ander (1947) has given details about the distribution of *S. hirta* in Scandinavia. Concerning its occurence in Sweden he says as follows: "Some new finds are not noted before 1938 in the review 'Sveriges Nature', there is some many words the occurence of *Scolia unifasciata* Cyril is announced within the province of Gotland, which presupposed that it has been discovered within the territory" (Ander l.s.). While Selander was the president of the Swedish Society for Conservation of Nature during the years 1936—1947 I supposed that Selander's find was the cause for the proclaiming of *Scolia hirta* in Gotland. Forestry officer, U. Weinberg, the secretary of the society mentioned above, has communicated that my hypothesis was true. The request of proclaiming Selander's find at Ljugarn was adduced as the cause for the petition.

Selander has determined this male to *Scolia unifasciata* Cyril. An examination shows that there are whole yellow zones on the 2nd and 3rd tergits which is characteristic of the principal form and coincide as to the colour with specimens which I have captured in Spain, Italy and Yugoslavia. The name of this male is *Scolia hirta* Schrk. The male of the variety *unifasciata* has a yellow zone only in the 3rd tergit. This find of *Sc. hirta* in Gotland is the first one although it has only now been published.

There is another find of *Sc. hirta* in Gotland. Keeper E. Kjellander has communicated that in the summer of 1954 he saw a specimen in Kyllej. Up to now all known finds of *Sc. hirta* in Gotland are from the east coast of the island.

Fam. **Tiphidae**

Tiphia F

T. femorata F. — Sk. Skälderviken 19/8-14 ♀ (Rl); Genarp 29/7-36 3 ♀ (Sr); Degeberga 12/7-40 ♀ (Sr). — Bl. Hällevik 9/8-38 ♀ (SG). — Hall. Skummeslöv ♀ 5/8-38 (Sr); Steninge Bruk 4/8-56 ♀ (Edn). — Sm. Långemåla: Hornsö 21/7-43 ♀♀ (Ld); Eksjö: Ränneslätt 12/2-58 ♀♀ (*Solidago virgaurea*) (Edn). — Öl. Vickleby 1/8-45 ♀, 2/8-45 ♀, 15/8-45 ♀ (Sr); Ekerum 23/7-52 ♀, 25/7-52 ♀ (Kjr); Mörbylånga 24/7-52 ♀, 27/7-52 ♀ (Kjr). — Gotl. Ardre 10/8-26 6 ♀, 13/8-26 ♀♀, 28/8-26 ♀♀ (Hdn); Ljugarn 5/8-42 ♀ (Wö); Visby 24/7-57 ♂ (Ld). — Ög. St. Anna: Lindholmen 18/8-41 ♀ (Wö); Gryt: Gräsmarö 20/7-48 ♀ (Wö).

T. ruficornis Lep. — Sk. Degeberga 26/7-38 3 ♀ 2 ♂. leg. S. Selander. In Selander's collection I found these five specimens which Selander had determined to this species. They agree well with the descriptions in the work of Schmiedeknecht (1930) and Hedicke (1930). But unfortunately there is no information under what conditions they were captured. This species is not found in the other Scandinavian

countries. Prof. J. de Bequmont, Lausanne, has had the amiability to confirm the determination. New to the Swedish fauna.

T. minuta v. d. Lind. — Öl. Borgholm ♀ (Ld). — Gotl. Ljugarn 24/6-26 ♀ (Hdn). — Ög. Norrköping 22/6-26 ♂ (Wö); St. Anna: Korsnäs 12/6-37 ♂, 19/6-39 ♂ (Wö). — Upl. Svartsjö 9/7-22 ♀ (Hdn). — Hls. Järvsö 4/7-22 ♀ (Rmn).

Fam. **Methocidae**

Methoca Latr

M. ichneumonides Latr. — Hall. Halmstad 2/7-52 ♀ (Hn). — Öl. Högsrum ?/7-41 ♂ (Wlr). — Gtl. Ardre 10/8-26 ♂ (Hdn). — Sdml. Brandalsund 24/8-54 ♀ (Edn).

Fam. **Myrmosidae**

Myrmosa Latr

M. melanocephala F. — Sk. Sandhammaren 15/7-40 ♂ (Sr); Kåseberga 15/7-40 ♂ (Sr); Falsterbo 30/7-39 ♂ (Sr). — Boh. Orust: Edshultshall 26/7-46 ♀ (Edn). — Sm. Långemåla: Hornsö 21/7-43 ♀ (Ld). — Öl. Borgholm 11/7-32 ♂ (Hdn); Ekerum 25/7-52 ♂ (Kjr). — Ög. Norrköping: Svärtingevägen 5/7-26 3 ♂, 4/8-26 ♀ (Wö); Ö. Eneby: Tingsjöbröten 1/8-26 ♀ (Wö); St. Anna: the church 23/6-37 ♂ (Wö). — Vg. V. Bodarna 15/7-34 ♂ (Hdn); Alingsås: Hjälmered 28/7-34 ♂ (Hdn). — Nr. Laxå 28/8-00 ♀ (Rmn). — Sdm. Muskö 9/7-32 ♂ (Sr); Tyresö-Brevik 16/7-34 ♂ (Sr); Tyresö: Svartbäcken 31/7-34 ♂ (Sr); Mölnbo 20/7-40 ♀ (Rmn): Södertälje 15/8-37 ♂♂ (Rmn). — Upl. Stockholm, the Experimental Field 2/7-20 ♀ ♂ (Hdn); Grisslehamn 12/7-35 ♂, 20/7-35 ♂ (Hdn); Björkö 6/7-36 ♂, 7/7-36 ♂, 8/9-36 ♂♂, 13/7-36 3 ♂, 19/7-36 ♂ (Hdn); Djurö 7/8-39 ♂ (Rmn); Håbo-Tibble 23/6-40 ♂, 25/6-40 ♂ (Sr), 1/7-40 ♂ (Sr); Kalmarsand 6/7-40 ♂ (Sr); Vassunda: Tursbo ♀ 3 ♂ (Ld). — Vrm. Gylleby säteri 3/7-50 ♀ (Edn); Skagersbrunn 19/7-16 ♂, 24/7-16 ♂ (Rmn). — Dlr. Ludvika 18/7-17 ♂ (Rmn); Borlänge: Tjärna 20/7-44 ♀ ♂ (Ld). — Hls. Järvsö 19/7-22 ♂ (Rmn).

Fam. **Mutillidae**

Mutilla L.

M. europaea L. — Sk. Hjärnarp 29/6-07 ♀?; Vittsjö 3/5-35 ♀ (Bu); Ytenhult ?/7-39 ♀ (W); Vemmentorp ?/7-41 ♀ (J. W.); Åsljunga 18/7-59 ♂ (An); Vedelsbäck, Stehag ♀?. — Hall. Karup, the old road 20/6-09, 6/6-09 ♀ (Nm); Karup, sea-shore 2/7-09 ♀ (Nm); Halmstad: Karlsro 3/8-30 (several ♂♂ and ♀♀ captured in a nest of *Bombus muscorum* F) (Wlr); Steninge Bruk ?/8-41 ♀ (Hm); Enslöv 9/6-49 ♀ (An). — Boh. Kungälv 4/8-37 ♂ (Sr); Gustafsberg. near Uddevalla 8/7-41 ♀ (Ln); Ytterby 24/7-50 ♀ (Rk); Hogdal: Dyna 18/6-60 ♀ (Lir); Resteröd ♀ (Nm). — Sm. Odensjö 1896 ♀?; Ryssby 3/5-23 ♀, ?-24 ♀ (CBG), ?-24 ♀ (DG); Tutaryd ♀ (in a nest of *Bombus agrorum* (CBG); Bolmen 27/6-48 ♀, 24/7-42 5 ♂ (Rl); Tutaryd: Sjöatorp 4/9-25 ♀ (*Bombus agrorum*), 2/8-25 ♀, 30/8-25 ♂ (CBG). — Öl. Mörbylånga 29/6-32 ♀ (DG); Bredsätra: Kapellsudden 8/8-34 ♀ (DG); Gårdby 25/8-49 ♀ (Be). — Gotl.

Visby 10/7-36 ♂ (Rl); Fårö: Vinor 1/8-50 ♂♂ (Heracleum) (Wlr); — Vg. Göteborg ♂ (C. G. Thomsons coll.); Stannum: St. Lundby ♀ (Nn); Floda: Ulvsbo, Skallsjö 15/7-50 ♀♀ (En); Händene, according to a communication by E. Kjellander. — Dlsl. Steneby 9—12/7-38 ♀ (CBG); Köpmannsbro 6/7-31 ♀ (Hsn): Stenebynäs 14/7 -49 ♂, 15/7-49 ♂ (Edn).

This species has an interesting distribution in the Scandinavian countries so I consider it suitable to include a map of its distribution (Fig. 1). The German localities I have received from Wagner (1937).

Smicromyrne André

S. rufipes F. — Sk. Båstad 14/7-02 ♀♀ (Rmn); Falsterbo 20/6-39 ♂ (Sr); Ven 12/9-48 ♀♀ (Ld); Blentarp 18/8-54 ♀ (Ld); Ivö 19/8-54 ♀ (Ld); Vitemölla 22/8-54 ♀ (Ld); Sandhammaren 22/7-58 ♀ (Edn); Ystad, sea-shore 24/7-58 ♀ (Edn); Åhus 18/7 -60 3 ♀ (Hqt). — Boh. Sydkoster: Kilesand 9/8-47 ♀ (A. Edn); Edsviken 16/8-54 ♀ (Edn). — Öl. Böda 1913 ♂ (Ld), 5—15/8-37 ♀ (Hn); Mörbylånga 19/7-52 ♀ (Kjr). — Gotl. Fårö, Ulla Hau 21/7-56 ♀ (Ld); Visby 24/7-56 ♀ (Ld). — G. Sand. 26/6-53 ♀ (Hqt). — Ög. Norrköping 5/7-26 ♀, 30/7-26 ♀, 16/8-26 ♀♀ (Wö). — Nr. Skogaholm 1/7-61 ♀ (Lir). — Sdm. Nyköping, Larslund 6/9-54 ♀♀ (Kjr). — Upl. Upsala 17/9 -02 ♀♀ (Rmn); Nacka ?/6-20 ♂ (Hdn); Stockholm, the Experimental Field ?/7-20 ♀ (Hdn); Björkö 17/7-36 ♀ (Hdn). — Vrm. Skagsbrunn 19/7-16 ♂ (Rmn).

Fam. **Eumenidae**

Subfam. **Eumeninae** West. 1840

Odynerus Latr

Odynerus (*Oplomerus*) *spinipes* L. — Sk. Trolleholm, old housewall 21/7-57 ♀ (Edn); Näsum, gravel-pit 24/7-57 ♀ (Edn); Norrviken 26/6-37 ♂ (Sr); Båstad 3/7-37 ♀ (Sr). — Boh. Fiskebäckskil ?/6-18 ♂ (Hdn); Ödsmål 11/6-38 ♂ (Hn). — Sm. Höreda, parsonage, old housewall 23/6-58 ♂ (Edn). — Öl. Ottenby 3/7-38 ♂ (Rmn). — Gotl. Slite 9/7-54, 8 ♀ (Kjr); Fardume 11/7-54 2 ♀ (Kjr). — Ög. St. Anna: Korsnäs 5/6-37 ♂; 14/6-37 ♀ ♂, 22/6-37 2 ♂ (Wö); St. Anna, the church 15/6-37 ♂ (Wö). — Dlsl. Billingsfors 17/7-54 3 ♀ (Ld). — Sdm. Tyresö-Brevik 1/7-31 ♂, 28/6-32 ♀, 16/7-32 ♀; Tyresö-Dyvik 2/7-31 ♂, 26/6-31 ♀, 6/7-31 ♀ (all Sr); Trosa: Lacka 6/7-52 ♀ (Rmn) — Upl. Värmdö: barnvik 1936 ♀ (Lkr); Björkö 4/6-36 ♀ (Hdn); Grisslehamn 20/7-35 2 ♂ (Hdn): Stockholm, the Experimental Field 2/6-22 ♂ (Hdn); Kalmarsand 6/7-40 ♀ (Sr); Järlåsa, near the church 11/6-56 2 ♂ (Edn); Fresta: Fällebro 4/7-56, 9 ♀ 3 ♂ (Ld); Åkersberga 14/6-57 (Edn); Vassunda: Tursbo 3 ♀ 2 ♂ (Ld); Resarö ♂ (Me). — Nrk. Bärsta 1/7-33 ♂ (Rmn). — Vstm. Guldsmedshyttan, flying on *Lotus corniculatus* 15/6-56 2 ♂ (A. and S. Edn). — Dlr. Hosjö 2/9-15 ♀ (Sg). — Jmtl. Snasahögarna 24/9-87 ♀ (without the name of the collector).

Od. (*Opl.*) *melanocephalus* Gmel. — Boh. Fiskebäckskil ?/6-18 ♂ (Hdn). — Sm. Söderåkra: Gunnarstorp 13/7-27 ♂ (Wö). — Ög. Norrköping: Smedby 10/8-27 ♀ (Wö). — Sdm. Tyresö: Svartbäcken 11/7-32 ♀, 10/6-36 ♀ (Sr); the castle of Sturehov 29/6-63 ♀ (*Aegopodium podagraria*) (Edn). — Upl. Svartsjö 22/7-22 ♂ (Hdn); Furusund 5/8-23 ♀ (Hdn); Ingarö: Klocknäset 23/7-31 ♀ (Sr); Vassunda: Tursbo 3 ♀ 2 ♂ (Ld).

Od. (*Opl.*) *reniformis* Gmel. — Bl. Jämjö 15/6-34 ♀ (Ld). — Öl. Borgholm ♀ (Ld); Vickleby 23/6-45 ♀ ♂ (Sr). — Ög. St. Anna Korsnäs 14/6-37 ♂; 18/6-37 ♂ (Wö); St. Anna, the church 23/6-37 ♀, 25/6-44 ♂ (Wö). — Sdm. Tyresö: Bollmora 10/7-35 ♂ (Sr); Tyresö: Svartbäcken 13/6-36 2 ♂ (Sr). — Upl. Nacka ?/6-19 ♂ (Hdn); Värmdö 21/6-25 2 ♂ (Hdn); Håbo-Tibble 14/6-40 ♂ (Sr); V. Ryd: Sandby 17/7-42 ♂ (Sr); Åkersberga 14/6-57 3 ♂ (Edn); Ekerö, gravel-pit near the church 15/6-57 ♀ (Edn).

Od. (*Gymnomerus*) *laevipes* Shuck. — Sk. Löderup, the sea-side watering-place, flying among the dunes 19/7-58 ♀* (Edn); Simrishamn 7/7-58 ♀ (Edn); Norrviken 24/6-37 ♂ (Sr). — Hall. Steninge Bruk, window-pane 10/8-56 ♀ (Edn). — Sm. Höreda, parsonage, old housewall 23/6-58 ♀ (Edn). — Ög. Börrum: Nåstebro 25/6 -37 ♀ ♂ (Wö); St. Anna: Korsnäs 22/6-37 ♀ (Wö). — Vg. V. Bodarna 29/6-34 ♀ (Hdn). — Dlsl. Billingsfors 17/7-54 ♀ (Ld). — Sdm. Fittja 8/6-30 ♀ (?); Tyresö: Brevik 24/7-31 ♀ ♂, 18/6-38 ♀ (Sr); Tyresö: Svartbäcken 14/6-33 ♀, 20/6-36 ♀ (Sr). — Upl. Vassunda Tursbo 3 ♀ (Ld); Värmdö 28/6-25 ♀, 5/7-25 ♂ (Hdn); Håbo-Tibble 15/6-40 ♀, 16/6-40 ♀, 19/7-40 ♀ (Sr); Björkö 13/7-36 ♀, 17/7-36 ♀ (Hdn); Järlåsa, near the church 11/6-56 ♂ (Edn); Fresta: Fällebro 1/7-56 ♀ (Ld).

Od. (*Nannodynerus*) *dentisquama* Thoms. — Sk. Sandhammaren 22/7-58 ♂ (Edn). — Hall. Skummeslöv 8/8-37 ♀ (Sr). — Gotl. Kyllej 10/7-55 ♂ (Kjr). — Sdm. Tyresö: Bollmora 3/8-35 ♂ (Sr).

Od. (*Nannod.*) *picticrus* Thoms. — Hall. Skummeslöv 11/7-38 ♂ (Sr). — Gotl. Fårö: Sudersand 17/6-47 ♀ (Edn). — Sdm. Tyresö: Svartbäcken 28/6-31 ♀, 4/7-31 ♀, 20/7-31♀ (Sr); Tyresö-Brevik 10/7-35 ♀, 19/8-35 ♀ (Sr). — Upl. Vassunda: Tursbo 2 ♀ 3 ♂ (Ld). — Dlr. Hosjö 2/9-15 ♀ (Sg). — Ly. Lpm. Lycksele 10/7-57 ♂ (Edn).

According to Blüthgen (1961 p. 117) the distribution of this species is boreo-alpine.

Od. (*Allodynerus*) *delphinalis* Gir. (=*O. tristis* Thoms.). — Öl. 23/6-20 ♀ ♂ (Jn); Vickleby 1/8-45 ♂ (Sr). — Ög. Norrköping: Svärtingevägen 23/7-26 ♂ (Wö). — Sdm. Mölnbo 10/7-40 ♀ (Rmn). — Upl. Runmarö 1/7-53 ♀ (Kjr); Fresta: Fällebro 1/7-56 ♀ (Ld).

Od. (*Euodynerus*) *notatus* Jur. — Bl. Karlskrona 2/8-58 ♀ (Edn). — Ög. Norrköping: Smedby 10/8-27 ♀ (Wö); St. Anna: Korsnäs 24/6-37 ♀ 2 ♂ (Wö). — Sdm. Tyresö-Brevik 17/8-31 2 ♀, 24/7-31 ♂, 4/7-31 ♀ ♂ (Sr). — Upl. Vasunda: Tursbo 1/7-13 ♀ (Ld); Värmdö: Barnvik, ?/6-35 ♂ (Lkr); Svartsjö 3/7-22 2 ♀, 23/7-22 ♀, 20/8-27 ♂ (Hdn); Håbo-Tibble 15/6-40 2 ♂, 20/6-40 ♀, 18/7-41 ♀, 28/5-41 ♂, 18/6 -41 ♀ (Sn); Stockholm: Skansen 26/6-64, 5 ♀ 2 ♂ (Edn).

Blüthgen (1961 p. 144) divides this species in two subsp. viz. *notatus notatus* Jur. and *natatus pubescens* Thoms. The last-mentioned subsp. is for the main part distributed in the North of Europe. Some of the above-mentioned specimens belong to the subsp. *pubescens*.

Od. (*Euod.*) *quadrifasciatus* F. (=*O. tomentosus* Thoms.). — Hall. Skummeslöv 22/7-38 ♀, 11/7-38 ♂ (Sr). — Boh. Sydkoster, Kilesand 18/7-48 ♀ ♂ (Edn); Ödsmål ♀ ♂ (Hn). — Sm. Flisby 8/6-34 ♂ (Ld); Flisby: Brånstorp 6/6-60 ♂ (Edn). — Ög. Norrköping: Svärtingevägen 5/7-26 ♀ (Wö); N. Vi 17/6-32 ♀ (Rmn). — Vg. Kinnekulle 30/7-37 ♀ (Sr). — Sdm. Stjärnhov 20/6-56 ♀ (Edn); Tyresö: Dyvik 26/6-31 ♀, 4/8-31 ♂ (Sr); Bokö 8/7-32 ♂ (Rmn). — Upl. Värmdö 28/6-25 ♂ (Hdn); Björkö 6/7-36 ♀, 22/7-36 ♂ (Hdn); Håbo-Tibble 21/7-40 ♂ (Sr.); Håtuna: Draget 23/6-41 ♀ (Sr); V. Ryd: Sandby 17/6-42 (Sr); Upsala 19/7-55 ♀ (Ld); Vassunda: Tursbo ♀ 2 ♂ (Ld). — Vstm. Hällefors 12/7-56 ♂ (Edn). — Vrm. Skagersbrunn 14/7-16 ♀ ♂ (Rn). — Ång. Bjästa 12/7-57 ♂ (Edn).

Od. (*Ancistrocerus*) *parietum* L. — Sk. Simrishamn 30/7-36 ♀ (Sr), 26/6-58 ♂

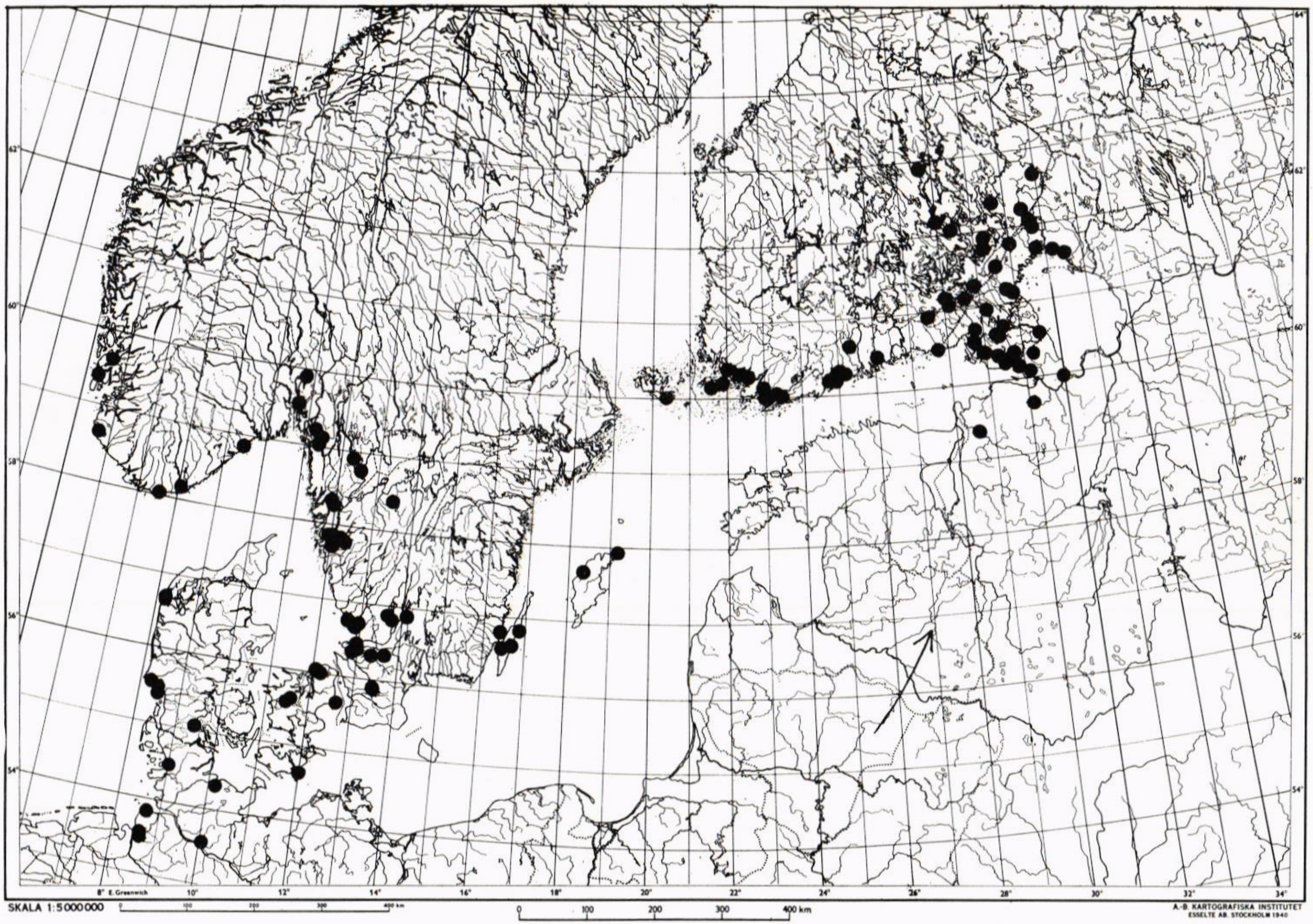


Fig. 1. The distribution of *Mutilla europaea* L. in Fennoscandia and some localities from USSR. (Original.)

(Edn); Båstad 10/6-37 ♂ (Sr); Norrviken 24/6-37 ♀ (Sr); Mölle 14/7-38 ♂; Ljunghusen 13/6-39 ♂ (Sr); Falsterbo 14/7-39 ♂, 16/7-39 ♀, 27/7-39 2 ♂ (Sr); Rinkaby 15/7-48 2 ♂ (Hqt); Ven 12/9-48 ♂ (Ld); Löderup, seashore among the dunes 15/7-58 ♂ (Edn); Sandhammaren 22/7-58 2 ♂ (Edn); Vitemölla 30/7-58 3 ♂; Kristianstad 5/8-58 ♂ 2 ♀ (Edn). — Bl. Olofström 7/8-58 ♂ 4 ♀ (Edn). — Hall. Skummeslöv 4/7-38 ♂ (Sr); Getinge 3/8-58 ♀ (Edn); Steninge Bruk 11/8-56 ♀ (Edn). — Boh. Fiskebäckskil 13/7-25 ♂, ?/5-18 30, ?/6-18 3 ♂ (Hdn). — Sm. Flisby: Brånstorp 4/8-57 ♀, 6/8-57 2 ♂, 6/6-60 ♀ (Edn); Höreda, parsonage 23/6-58 ♂ (Edn); Eksjö 6/8-57 ♀ 3 ♂, 15/8-60 ♀ (Edn). — Öl. Borgholm ♀ ♂ (Ld). — Gotl. Kapellshamn 6/7-54 2 ♀ (Kjr). — Vg. V. Bodarna 15/7-34 ♂, 18/7-34 ♂ (Hdn); Mösseberg 30/7-37 ♂ (Sr). — Dlsl. Bengtsfors 16/7-54 ♂ (Ld). — Sdm. Tyresö-Brevik 22/7-31 ♂, 24/7 -31 ♀, 25/8-31 ♀, 12/7-36 ♂, 14/7-36 ♀ (Sr); Tyresö: Svartbäcken 8/7-32 ♂ (Sr); Viksberg 13/6-54 ♂ (Ld). — Upl. Svartsjö 2/8-20 ♀, ?/8-21 ♀ (Hdn); Upsala 5/8-33 ♀ (Hdn); Grisslehamn 11/8-35 ♀ (Hdn); Håbo-Tibble 31/7-40 ♂, 4/8-40 ♀, 10/8-40 ♀ (Sr); Runmarö: Boholm 3/7-53 ♂ (Kjr); Övergran: Vi 8/8-54 ♀ (Ld); Vassunda: Tursbo ♀ (Ld). — Vstm. Hällefors 16/6-56 ♀ (Edn); Arbåga 27/6-57 ♂ (Edn); Skinnskatteberg ?/6-57 5 ♀ (CBG). — Med. Sundsvall 13/7-57 ♂ (Edn). — Ång. Sollefteå 1/7-57 ♀ (Edn).

Od. (*Ancist.*) *claripennis* Thoms. — Sk. Falsterbo 24/6-36 ♂, 4/7-39 ♀, 16/7-39 ♂ (Sr); Simrishamn 8/7-58 ♂♂ (Edn). — Hall. Skummeslöv 11/7-38 ♂, 16/7-38 ♂ (Sr); Steninge Bruk 2/8-58 ♀ (Edn); Falkenberg 8/8-56 ♂ (Edn). — Boh. Fiskebäckskil 24/7-24 ♂♂ (Hdn); Alsbäck 20/7-50 ♂ (Ld); Lysekil 5/8-64 ♀ (Edn). — Sm. Flisby 18/6-34 ♂, 21/6-34 ♂ (Ld); Flisby: Brånstorp 13/8-58 ♂ (Edn); Eksjö 6/8-57 ♂ (Edn). — Öl. Glömminge 21/8-22 ♂ (Hdn); Vickleby 4/8-45 ♀ (Sr); Borgholm ♂ ??. — Ög. Simonstorp 17/7-26 ♂, 18/7-26 ♀ (Wö); Norrköping: Svärtingevägen 16/7-26 ♂, 22/7-27 ♂ (Wö); St. Anna: Korsnäs 24/6-37 ♂, 3/7-38 ♂, 21/8-38 ♀ (Wö). — Vg. Kållandsö 17/7-26 ♀ (Hdn); Kinnekulle 22/7-37 ♂ (Sr); Karleby 24/7-57 ♀ (Edn). — Sdm. Ludgo ?/7-14 4 ♀ (Sg); Rönninge 5/8-39 ♀ (Be); Tyresö: Svartbäcken 11/7-38 ♂, 16/7-38 ♂ (Sr); Stjärnhov 29/7-56 (Edn). — Upl. Svartsjö ?/7-21 ♀ (Hdn); Värmdö 15/8-25 ♀ (Hdn); Grisslehamn 13/7-35 ♀, 19/7-35 ♂, 27/7-35 ♂ (Hdn); Upsala 28/7-33 ♂, 30/7-33 ♂ (Hdn); Björkö 8/7-36 ♂, 7/7-36 ♀ (Hdn); Håbo-Tibble 15/6-40 ♂, 26/6-40 ♂ (Sr); Vassunda: Tursbo, ?/5-18 ♀ (Ld). — Dlr. Hosjö ?/9-15 ♀ (Sg). — Hls. Orbaden 29/6-57 ♂ (Edn).

Od. (*Ancist.*) *gazella* Panz. (=*pictipes* Thoms.). — Bl. Olofström 7/8-58 ♂ (Edn) (*Anethum graveolens*). — Gotl. Ljugarn 25/7-26 ♀ (Hdn); Kyllej 5/7-54 ♀ (Kjr). — Sm. Flisby 18/6-34 ♂ (Ld). — Vg. V. Bodarna 9/7-34 ♂, 10/7-34 ♂ (Hdn). — Upl. Svartsjö 20/8-22 ♂ (Hdn); Värmdö 5/7-25 ♂, 15/8-25 ♂ (Hdn); Grisslehamn 13/7-35 ♂, 19/7-35 ♂♂ (Hdn); Björkö 4/7-36 ♂, 7/7-36 ♂ (Hdn); Nåtarö 15/7-35 ♂ (Sr).

Od. (*Ancist.*) *ichneumonideus* Ratz. (*Ancist. gazella* Panz. in Thomson's Hymen. Scand. III 1874 p. 80 ♂ ♀). — Hall. Skummeslöv 2/9-37 ♀ (Sr). — Sm. Flisby: Brånstorp 13/8-58 ♀ (Edn). — Öl. Vickleby: St. Frö, sea-shore 26/6-45 ♂ (Sr). — Gotl. Ljugarn 27/7-33 ♀ (Sr). — Vg. Stenum 1/8-52 ♀ (Kjr). — Sdm. Tyresö: Svartbäcken 18/7-36 ♀ (Sr). — Upl. Gräsö 4/6-61 ♀ (Edn). — Vstm. Sala: Lars-Ols, old house-wall 6/6-56 ♂ (A. Edn).

Od. (*Ancist.*) *trifasciatus* Müll. — Sk. Båstad 10/7-38♀ (Sr); Ljunghusen 13/6-39 ♂, 17/6-39 ♂ (Sr); Ivö 19/8-54 4 ♀ (Ld); Nyby 21/6-57 ♂ (Edn); Vik 18/7-58 ♂ (Edn); Sandhammaren 22/7-58 ♂ (Edn). — Bl. Karlskrona 1/8-58 ♀ (Edn); Aspö 3/8-58 ♀ (Edn). — Hall. Steninge Bruk 12/8-56 ♂ (Edn). — Boh. Fiskebäckskil 20/6-24 ♂ (Hdn); Ödsmål ?/7-50 ♀ (Hn); S. Koster: Kilesand 14/7-50 ♂ (Edn). — Sm. Flisby 23/6-34 ♂ (Ld); Flisby: Brånstorp 1/8-57 ♂, 13/8-58 ♀ (Edn); Eksjö

13/8-58 ♀, 15/8-60 ♀ (Edn). — Gotl. Ljugarn 29/7-26 ♂, 30/8-26 ♀ (Hdn); Ardre 10/8-26 ♀♀ (Hdn); Kyllej 13/7-55 ♀ (Kjr); Etelhem 14/7-55 ♀ (Kjr); Visby 24/7-56 ♀ ♂ (Ld). — Ög. Norrköping: Svärtingevägen 24/6-26 ♀, 4/8-26 ♂ (Wö); Finspång: Lämmetorp 5/8-26 ♀ (Wö); St. Anna: Korsnäs 14/6-37 ♀ (Wö); Börrum: Nöstebo 22/8-38 ♀♀ (Wö). — Vg. V. Bodarna 16/7-34, 8/8-34 ♀, 9/8-34 ♀, 18/8-34 ♀ (Hdn). — Dlsl. Bengtsfors 16/7-54 ♂ (Ld). — Sdm. Ludgo ?/7-14 ♂ (Sg); Tyresö: Telegrafberget 3/7-31 ♂; Tyresö: Brevik 23/7-31 ♂, 23/7-32 ♀, 28/8-32 ♀ (Sr); Dalarö: Lövskär 9/8-34 ♂ (Sr); Södertälje 20/6-37 ♀ (Ld); Nyköping 27/8-50 ♀ (Fd), 11/8 -52 ♀ (Kjr). — Upl. Upsala 2/7-21 ♀. 7/7-33 ♀, 28/7-33 ♀ (Hdn); Stockholm: Experimental field ?/7-21 ♀, ?/8-19 ♀, ?/7-22 ♀, ?/8-20 ♀ (Hdn); Furusund 5/8-23 ♂ (Hdn); Grisslehamn 6/7-35 ♀, 15/7-35 ♂ (Hdn); Stocksund 12/5-37 ♂ (Rmn); Värmdö: Barnvik 1936 ♀ (Lkr); Nåtarö 15/7-35 ♀ (Sr); Håbo-Tibble 30/6-40 ♀, 29/7-40 ♀ (Sr); Runmarö 3/7-53 5 ♂ (Kjr); Väddö: the church 26/5-56 ♂ (Edn); Vassunda: Tursbo ♀ (Ld). — Vstm. Sala: Lars-Ols 6/8-57 ♀ (Edn). — Hls. Loos 12/6-41 ♀ (Ld); Järvsö 29/6-57 ♂ (Edn). — Dlr. Ludvika 1915 3 ♀ 3 ♂ (Sg); Hosjö 1915 ♂ (Sg); Särna ♂ ??. — Ång. Örnsköldsvik 12/7-57 ♂ (Edn); Mjällom: Norrfältsviken 8/8-61 ♀♀ (Hqt).

Od. (*Ancist.*) *parietinus* L. — Sk. Båstad 10/6-37 ♂, 3/7-38 ♀, 4/7-39 ♀ (Sr); Mölle 14/7-38 ♂♂ (Sr); Falsterbo 5/7-39 ♂ (Sr). — Hall. Skummeslöv 4/7-38 ♂♂, 11/7-38 ♂ (Sr). — Sm. Söderåkra: Ekeryd 12/7-27 ♀ (Wö); Flisby: Brånstorp 14/8-60 ♀ (At the nest in an tree-trunk to this female the author captured 3 females of *Chrysis viridula*), 21/8-60 ♂ (Edn). — Gotl. Kyllej 13/7-55 ♀ (Kjr). — Ög. Kvarsebo-Säter 22/7-24 ♀ (Wö); St. Anna: Korsnäs 9/6-37 ♀, 3/7-38 ♂ (Wö); Gryt: Gräsmarö 20/7-46 ♂ (Wö); Simonstorp 8/7-55 ♀ (Hqt). — Vg. Finnekumla 1912 ♀ (Sg). — Sdm. Tyresö-Brevik 27/7-31 ♀, 28/8-31 ♀ (Sr). — Upl. Vassunda: Tursbo ?/6-17 ♀ (Ld); Stockholm: Frescati 16/6-48 ♀ (Hn); Värmdö 5/7-22 ♀♀ (Hdn); Svartsjö ?/7-21 ♀ (Hdn); Djursholm 1941 3 ♀ (Gn); Dannemora 29/7-49 ♀ (Ld); Rådmansö 26/6-54 ♀ (Ld); Håbo-Tibble 15/6-40 ♀, 24/6-40 ♂ (Sr); Runmarö 1/7-53 ♀ ♂, 2/7-53 5 ♂, 3/7-53 4 ♀ 6 ♂, 4/7-53 3 ♂ (Kjr). — Vrm. Skagersbrunn 10/7-16 ♀ (Rn). — Dlr. Malingsbo 25/7-41 ♀ (Fd); Hosjö ?/9-15 ♂ (Sg). — Hls. Järvsö 12/7-13 ♀, 18/7-22 ♀, 22/7-22 ♂ (Rn). — Hjd. Älvros 3/7-49 ♀ (Ld). — Lu. Lpm. Kvikkjokk 7/8-39 ♂ (Sr).

Od. (*Ancist.*) *antilope* Panz. — Sk. Kulla Gunnarstorp 21/6-56 ♀ (Ld). — Bl. Sjöarp ?/7-50 ♀ (Hqt). — Öl. Glömminge 26/6-32 ♀ (Hdn). — G. Sand. 1/7-53 ♀ (Bh). — Ög. Norrköping: Svärtingevägen 8/7-26 ♀, 20/7-27 ♀ (Wö); Kvillinge: Malmö 27/7-27 ♀ (Wö). — Dlsl. Bengtsfors 16/7-54 ♀ (Ld). — Sdm. Tyresö: Svartbäcken 23/7-33 ♀ (Sr); Tyresö: Dyvik 21/6-36 ♀ (Sr). — Upl. Vassunda: Tursbo ?/7-17 ♀ (Ld); Stockholm: Frescati 25/6-40 ♀ (Ld); Svartsjö ?/7-21 ♀ (Hdn); Upsala 2/8-33 ♀ (Hdn); Håbo-Tibble 27/6-40 ♀, 5/7-40 ♀, 6/7-41 ♀ (Sr); Ingarö ♀ ? (Ln). — Ång. Bjästa 12/7-57 ♀ (Edn). — Ly. Lpm. Sorsele ♀ (CBG).

Od. (*Ancist.*) *nigricornis* Curt (=*Od. callosus* Thoms. and *Od. exicus* Thoms.) — Sk. Ivö 19/8-54 ♀ 10 ♂ (Ld). — Boh. Rossö hamn 19/7-48 ♀ (Edn). — Ög. Kvarsebo-Säter 23/8-24 ♂ (Wö); Norrköping: Svärtingevägen 26/7-27 (Wö); St. Anna: Korsnäs 2/6-28 ♀ (Wö); Malmslätt ?/7-16 ♀ (Hdn). — Sdm: Tyresö-Dyvik 2/7-31 ♀, 25/8-31 ♀ (Sr); Tyresö-Brevik 30/6-31 ♀, 15/6-33 ♀, 16/6-33 ♀, 22/8-36 ♀, 25/8-31 ♀ (Sr); Rönninge 6/5-37 ♀ (Be); Stuvsta 1/7-27 ♀ (Hdn); Stockholm: Mälarhöjden 22/8-52 ♀♀ (Kjr). — Upl. Värmdö 30/7-25 ♀ (Hdn); Stockholm: Experimental Field ?/9-19 ♂ (Hdn); Upsala 25/5-35 ♀ (Hdn); Ingarö: Harsö 22/6-32 ♀ (Sr); Värmdö: Barnvik 1936 ♀ (Lkr); Håbo-Tibble 27/6-40 ♀, 15/6-41 ♀, 16/6-41 ♀, 26/5-41 ♀ (Sr);

Upsala: Hort. Bot. 26/4-38 ♀ (Wö); Sigtuna 10/5-37 ♀?; Gimo 25/5-47 ♀ (Edn); Vassunda: Tursbo 4/5-39 ♀ ♂ (Ld); Rådmansö 26/8-54 ♀ (Ld).

Od. (*Ancist.*) *oviventris* Wesm. — Sk. Båstad 17/6-38 ♂ (Sr); Ljunghusen 12/6-39 ♂ (Sr); Baskemölla 21/6-58 ♂*, 9/7-58 ♂; Löderup, sea-shore 19/7-58 ♀*; Listerum 23/7-58 ♀*; Gislöv, the hamlet 26/7-58 ♀*, Kristianstad 5/8-58 ♀* (All the specimens captured by Edn); Kulla-Gunnarstorp 21/6-56 ♀♀ (Ld). — Sm. Söderåkra: Stavnäset 14/7-29 ♀ (Wö); Trosa: Askö 3/8-32 ♀ (Rmn). — Öl. Borgholm ♀ (Ld); Torslunda 7/6-41 ♀ ♂♂ (Sr); Vickleby 23/6-45 ♂, 29/7-45 ♀ (Sr). — Gotl. Lau 6/6-39 ♂ (Wö); Kyllej 4/7-55 ♂ (Kjr); Fårö: Linor träsk 8/7-55 ♀ (Kjr); Slite 9/7-54 ♀♀ (Kjr). — Ög. St. Anna: Misjö 12/7-25 ♀; St. Anna: Sporrholmen 19/7-40 ♀, 21/6-41 ♂; Norrköping: Svärtingevägen 29/6-26 ♀, 16/7-26 ♀; Norrköping: Kråkviken 27/7-27 ♀ (All specimens from Ög. captured by Wö.); Krokek 2/7-? ♂?. — Vg. V. Bodarna 12/6-34 ♀, 25/6-34 ♀ (Hdn); Alingsås 19/6-34 3 ♀ (Hdn); Karleby 24/7-57 ♀* (Edn). — Sdm. Tyresö-Brevik 19/6-33 ♀ ♂, 4/7-31 ♀, 24/7-31 ♂ (Hdn); Tyresta 17/7-38 ♀ ♂ (Wö). — Upl. Vasunda: Tursbo ♀ (Ld); Stockholm: Experimental Field ?/7-22 ♂ (Hdn); Björkö 4/7-36 ♀, 23/7-36 ♀ (Hdn); Värmdö: Barnvik 1936 ♀ (Lkr); Håbo-Tibble 18/6-40 ♂, 14/7-40 ♂ (Sr); Nacka 2/7-37 ♂ (Wö); Ekerö 15/6-57 ♀ (Edn); Åkersberga 14/7-57 ♂ (Edn); Stockholm: Hort. Bergianum 4/7-56 ♀ ♂ (Ld); Fresta: Fällebro 1/7-56 ♀ (Ld); Ljusterö 17/6-62 ♂ (Edn). — Dlr. Malingsbo 14/7-41 ♀ (Fd). — Med. Sundsvall 13/7-57 ♂* (Edn). — Ång. Kramfors 30/6-57 ♂ (Edn); Bjästa 12/7-57 ♂ (Edn). — Ås. Lpm. Dorotea 3/7-57 ♂♂* (Edn); Åsele 4/7-57 3 ♂ (Edn); Avaträsk 7/7-57 4 ♂ (Edn). — Ly. Lpm. Brattfors 9/7-57 ♀* (Edn); Lycksele 10/7-57 ♂♂* (Edn).

The specimens determined by Blüthgen belong to his opinion to ssp. *hibernicus* Blüth. v. *rufipes* Blüth. They are marked with a star (*).

Od. (*Ancist.*) *scoticus* Curt. — Hall. Steninge Bruk 7/8-56 ♀, 12/8-56 ♀ (Edn). — Sm. Strömserum 16/9-42 ♂ (Ld); Flisby: Brånstorp 17/8-59 ♂, 19/8-59 ♂ (Edn). — Öl. Vickleby 21/6-45 ♂, 5/8-45 ♂♂ (Sr). — Sdm. Viksberg 13/6-54 ♂ (Edn). — Lu. Lpm. Vastenjaure 9/8-62 ♂ (Lir).

Od. (*s.st*) *murarius* L. — Sm. Flisby: Brånstorp 11/8-61 ♀ (Edn). —Öl. Borgholm 3 ♀ (Ld). — Gtl. Slite 9/7-54 ♂ (Kjr). — Ög. St. Anna: Korsnäs 19/6-37 ♀ (Wö). — Sdm. Rönninge 1937 ♂ (Be). — Upl. Värmdö 21/7-23 ♀, 5/7-25 ♀ (Hdn); Björkö 13/7-36 ♀ (Hdn); Håbo-Tibble 16/6-40 ♀, 22/6-41 ♀, 23/6-41 ♀, 29/6-41 ♀, 5/7-41 ♀, 16/6-41 ♀ (Sr); Ö. Ryd 14/6-57 ♀ (Edn); Finsta 18/7-57 ♀ (Edn).

Od. (*Symmorphus*) *crassicornis* Panz. — Sk. Sandhammaren 21/7-58 ♂* (Edn). — Ög. St. Anna, the church 27/6-37 ♂ (Wö); Börrum: Nöstebo 22/8-38 ♀ (Wö). — Sdm. Tyresö-Brevik 24/7-36 ♀ (Sr); Vissvass 31/7-32 ♀ (Sr); Tyresta 17/7-38 ♀ (Wö); Trosa: L:a Uttervik 18/8-49 ♀* (Ker); Sparreholm 17/7-52 ♀ (Kjr); Stockholm 20/8-52 ♀ (Kjr). — Upl. Rumnarö 2/9-53 ♀, 3/7-52 ♀ (Kjr). — Hls. Bergvik 21/6-47 ♀, 25/6-47 ♀, 27/6-47 ♀♀ (Ld). — Vrm. Skagersbrunn 10/7-16 ♂ (Rmn). — Ås. Lpm. Saxnäs 10/7-39 ♂ (Rmn).

According to Blüthgen (1961 ♂. 194) this species is divided in two subspecies viz. ssp. *arcticus* Sauss. and ssp. *crassicornis* Panz. The first mentioned subsp. is distributed in Northern Europe, East Europe and North Asia. Blüthgen who has determined specimens from two localities (*) has named them ssp. *arcticus*. The female from Trosa he has named ssp. *arcticus* v. *baltica* Blüth.

Od. (*Sym.*) *alternans* Zett. — Sk. Båstad 10/6-37 ♂ (Sr); Ljunghusen 17/6-37 ♂ (Sr). — Hall. Skummeslöv 1/7-38 ♀, 4/7-38 ♂ (Sr). — Upl. Stockholm: Experimental Field ?/7-19 ♀ (Hdn). — Jmt. Undersåker 22/7-14 ♀♀ (Rl). — Ås. Lpm. Saxnäs 17/7-39 ♀ ♂, 20/7-39 ♂ (Rmn).

Od. (*Sym.*) *elegans* *Wesm.* (=*O. gracilis* Brullé). — Sk. Båstad 10/6-37 ♂, 11/7-37 ♀, 8/7-38 ♀ (Sr); Norrviken 24/6-37 ♀, 26/6-37 ♀ (Sr). — Ög. Norrköping 13/7-26 ♀ (Wö); St. Anna: Korsnäs 3/7-38 ♀ (Wö). — Sdm. Tyresö-Brevik 25/7-31 ♀ (Sr); Tyresö: Svartbäcken 26/7-34 ♀, 8/8-34 ♀ (Sr); Bokö 9/7-32 ♂ (Rmn). — Upl. Furusund 5/8-23 ♂ (Hdn); Stockholm: Experimental Field 11/7-27 ♀ (Hdn); Björkö 3/7-36 ♀; 4/7-36 ♀ ♂, 7/7-36 ♂, 22/7-36 ♀ (Hdn); Håbo-Tibble 28/6-40 ♀ (Sr).

Od. (*Sym.*) *mutinensis* Bald. (=*O. angustatus* Zett. at Thomson 1874). — Sk. Falsterbo 16/7-39 ♂ (Sr). — Bl. Jämjö: Hallarum 10/7-27 ♂ (Wö); Karlshamn 18/8 -54 ♀ (Ld). — Hall. Skummeslöv 4/7-38 ♂ (Sr); Steninge Bruk 4/8-56 ♀ ♂ (Edn). — Boh. Ödsmål: Näs 25/7-41 ♂ (Hn). — Sm. Flisby 29/7-39 ♀, 1/7-40 ♀, 25/7-41 ♀ (Ld); Flisby: Brånstorp 18/8-58 ♀ (Edn). — Öl. Borgholm ♀ (Ld); Vickleby 25/8-45 ♀ (Sr). — Ög. Norrköping: Svärtingevägen 4/8-26 ♀ (Wö); Kvarsebo-Säter 24/7-27 ♂; Risinge 31/7-26 ♀ (Wö); Börrum: Nöstebo 22/8-38 ♀ (Wö); Asby 11/6-33 ♂ (Rn). — Vg. Kållandsö 17/7-26 ♀♀ (Hdn); V. Bodarna 31/7-34 ♀ (Hdn); Mösseberg 30/7-39 ♂ (Sr). — Sdm. Ludgo 2/7-14 ♀ (Sg); Fittja 8/6-30 ♀?; Tyresö-Brevik 18/6-33 ♂, 15/7-33 ♀♀ (Sr); Tyresta 17/7-38 ♀ (Wö); Stockholm: Mälarhöjden 22/8-52 ♀ (Kjr). — Upl. Svartsjö 25/6-22 ♀, 8/7-22 ♀ (Hdn); Värmdö 15/8-25 ♀ (Hdn); Mariannelund 12/7-31 ♀ (Hdn); Upsala 4/7-33 ♀, 7/7-33 ♀, 9/8-33 ♀ (Hdn); Björkö 4/7-36 ♂ (Hdn); Grisslehamn 16/7-35 ♂, 17/7-35 ♀ (Hdn); Danderyd: Nora villastad 20/6 -32 ♀ (Rn); Håbo-Tibble 1/7-40 ♀ (Sr); Djurö 20/7-51 ♀, 25/7-51 ♀ (Nm); Vassunda: Tursbo ♂ (Ld); Ö. Ryd ?/7-19 ♂ (Hdn); Stavsnäs ?/7-38 ♀ (Me). — Vstm. Skinnskatteberg, ?/6-59 ♂ (CBG). Dlr. Ludvika 2/8-15 ♂♂, 11/8-54 ♀ (Sg); Vikarbyn ♀ (Rr). — Vrm. Skagersbrunn 17/7-16 ♀ (Rmn); — Med. Ånge ♂ (?).

Od. (*Sym.*) *debilitatus* Sauss. — Upl. Håbo-Tibble 19/6-40 ♂, 20/6-40 ♀ 3 ♂, 24/6 -40 ♂♂, 27/6-40 3 ♀, 5/7-40 ♀ (Sr); Upsala 29/5-57 ♀ (Edn).

Blüthgen (1961 p. 199) writes about this species: "Aus Nordeuropa kenne ich nur 2 Funde, nämlich 1 ♀ von Veckholm (Uppland, Schweden in M. Lu) und 1 ♀ von Spalle (lettisches Gebiet) in M. Bremen". It seems to be a very seldom species.

Od. (*Sym.*) *connexus* Curt. — Sdm. The castle of Sturehov 29/6-63 ♂ (Edn). The specimen captured on the flourescenc of *Anthriscus silvestris*. — Upl. Vassunda: Tursbo ♀ ♂♂ (Ld); Näsby 28/7-12 ♀ (Rn); Håbo-Tibble 19/6-40 ♀, 27/6-40 ♀ (Sr); Finsta 18/7-57 ♂ (Edn), flying on an old wood-wall.

Od. (*Sym.*) *fuscipes* H.-S. — Upl. Haverö ♂ (Chr. Aurivillius); Grisslehamn 28/6 -33 ♂ (Hdn); Ljusterö: Linanäs 22/8-64 ♂ (Edn).

Od. (*Sym.*) *bifasciatus* L. — Boh. Orust, Edshultshall 14/7-46 ♀ ♂ (Edn). — Sm. Flisby: Brånstorp 6/6-60 ♀ (Edn). — Ög. St. Anna: Korsnäs 4/6-37 ♂; 1/7-38 ♂ (Wö). — Sdm. Ornö 11/6-39 ♀ 31 ♂ (Rmn). — Upl. Vassunda: Tursbo 18/6-39 ♂ (Me); Håbo-Tibble 19/6-40 ♀, 20/6-40 ♀, 27/6-40 ♀ (Sr). — Hls. Loos ?/7-19 ♀♀ (Sg). — Med. Lidensboda 6—11/7-37 ♀ (Be). — Jmt. Undersåker 15/7-13 ♀, 27/6-14 ♀, 22/7-14 ♀, 4/7-14 ♂ (Rl). — Ås. Lpm. Saxnäs 16/7-39 ♀ ♂, 17/7-39 ♀ ♂, 20/7-39 ♂♂ (Rmn).

Pterochilus Kl

Pt. (*Nannopterochilus Blüth.*) *phaleratus phaleratus* Panz. — Sk. Raus 2/7-08 ♀ (Rl); Falsterbo 20/6-39 ♀ ♂, 4/7-39 ♂ (Sr). — Bl. Torhamn, sandy ground at the church 26/7-57 ♀ ♂ (Edn). — Hall. Skummeslöv 2/7-27 ♀, 4/7-37 ♀ (Sr). — Öl. Glömminge 15/5-59 ♀ (Ld).

Eumenes Latr

In a previous paper I have dealt with the distribution of the genus of *Eumenes* in Sweden and the distibution in Scandinavia of the two species *coarctatus* L. and *pedunculatus* Panz. (Erlandsson 1950). In the list given below I give the following information of new Swedish localities.

E. coarctatus L. — Hall. Steninge Bruk 7/8-56 ♀ ♂ (Edn). — Boh. Gräbbestad 16/8-54 ♀ (Edn); Skaftö: Kristineberg 14—15/7-00 ♀ (Rmn); Ödsmål ♀ (Hn). — Sm. The island of Blå Jungfrun 21/6-52 ♂ (Coulianus-Dahlskog); Källvik 29/8-09 ♂ ♀ (Rmn); Eksjö 6/8-57 ♂ (*Solidago virgaurea*) (Edn). — Öl. Borgholm -36 ♀ (Ld); Böda 27/7-54 ♂ (Wlr). — Gotl. Kyllej 6/7-54 ♂ (Kjr). — Vg. Falköping 24/7 -57 ♀ (*Solidago canadense*) (Edn). — Sdm. Ludgo 1/7-14 ♀ (Sg); Trosa: Bokö 31/7 -16 ♂ (Rmn). — Upl. Värmdö: Barnvik ?/7-35 ♂ (Lkr); Fogdö 29/7-48 ♂ (Kk). — Gstr. Ockelbo 4/8-51 ♀ (CBG). — Hls. Bollnäs 18/7-56 ♀ (Edn).

E. pedunculatus Panz. — Bl. Ronneby 17/8-54 ♀ (Ld). — Hall. Haverdal 12/8-56 ♂ (*Rhamnus frangula*) (Edn). — Öl. Böda 24/7-54 ♂♂, 27/7-54 ♂ (Wlr). — Sdm. Viksberg 13/6-54 ♂ (Ld). — Upl. Ekerö 20/6-54 ♂ (Ld); Lovön, shooting-range 6/9-54 ♂ (Edn). — Nrk. Laxå 25/7-06 ♂ (Rmn). — Med. Indalsälven, the delta-formation 28—30/6-37 ♀ (Be). — Nb. Edefors, the tourist-inn 5/7-56 ♀ (Edn).

Subfam. **Discoeliinae** (Thoms. 1874) Ashm. 1902

Discoelius Latr

In Aurivilli fauna (1918) there is only one species of the genus of *Discoelius* viz. *D. zonalis* Panz. Through Mader's investigation it was proved that under the name of *D. zonalis* there was hidden one more species which Mader (1936) called *D. Priesneri*. In the year 1953 Valkeila reported *D. Priesneri* from Finland.

Blüthgen (1961) is of the opinion that some of the Swedish localities of *D. zonalis* given by Thomson (1874) belong to *D. Priesneri*. I have had the opportunity to lock through Swedish specimens of *Discoelius* from different collections and I have found the two species from the following localities:

D. priesneri Mader. — Dlsl. Skåpafors 4/7-49 ♂ (Edn). Flying on one old wall. — Ög. St. Anna: Korsnäs 24/7-37 ♂ (Wö). — Upl. Fårösund 28/7-47 ♀♀ (Lg). The collector has determined the specimens to *D. zonalis*. He has given a detailed account of the finds (Lang 1948); Stockholm: Skansen 24/8-49 ♀ (Edn). — Nr. Örebro: Retretten 12/8-45 ♀, the nest in a post (Jn); In the neighbourhood of Örebro without information of the locality 22/6-37 ♀ (Jn). — Gstr. Hille: Forsby 23/6-45 ♀ and 7/7-45 ♀ (Fr). In a letter Fahlander has informed me that the specimens mentioned in his paper of 1954 under the name of *D. zonalis* belong to *D. Priesneri*. — Med. Alnö 1/8-? (Az) (det. Fahlander). — Jtl. Undersåker 20/7-14 ♂ (Rl).

From the province Ångermanland I have seen a ♀ collected by Stål but without provinience.

D. zonalis Panz. — Sk. S. Vånga: Nytorp 3/7-16 ♀ and 24/7-19 ♀ (Al). — Öl. Ekerum 25/7-52 ♀ (Kjr). — Sdm. Runmarö 3/7-53 ♀ (Kjr); Eskilstuna ?/7-41 ♀ (collector unknown). — Upl. Stockholm ♀ (Bhm); Uppsala 28/7-33 ♀ and 2/8-33 ♀ (Hdn); Rimbo 27/8-53 ♀ (Edn); Älvkarleby: Båtfors 26/6-37 ♀ (Pm). — Nrk. In the neighbourhood of Örebro without information of the locality and the date (Jn).

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